AGS/RHIC SHUTDOWN SCHEDULE

R. Zaharatos –Feb. 19, 2003

SHUTDOWN REQUEST PRIMARILY FOR ACCESS TO IR'S BY EXPERIMENTERS

SHUTDOWN PERIOD: WEDS., Feb. 19, 2003, 1200 TO 2200HRS(SYSTEMS READY FOR BEAM BY 2000HRS)

AGS RING NO ACCESS – POLARIZED PROTONS STUDIES

RHIC IR's – Restricted Access – 1200 to ?? most sweeps completed by 2100

RHIC TUNNEL RESTRICTED ACCESS PERIOD - 1200 to 2000 (SWEEPS BEGIN AS JOBS ARE COMPLETED) – HP surveys required for beam dump and injection line

BOOSTER RING NO ACCESS - POLARIZED PROTONS STUDIES

PRIMAY JOBS:

JOBS STATUS CODE: **C** complete **IP** in-process **RS** reschedule **CAN** cancelled
***** additions

RHIC TESTING

1. Correctors/Quench protection – investigate low resistance/shorts, repair and test(Bruno/Ganetis)

RHIC ACCESS JOBS

1. P.S.'s – repairs(See List)
2. Stoichastic Cooling(sect. 1 & 2) – commissioning(Gassner)
3. 1008 – install contactors and switches (FES – Pearson)
4. Inspect entire tunnel for condition of ice balls.(Zapasek)
5. Cryo - reinsulate those return lines that are close to instrumentation box– sectors 6, 7, 8, 9, and 12 to be completed(Wiegand)
6. Cryo – continue installation of temperature monitors in sector 4-Rack at 4Q6 which covers sects.4 & 5.(4-6hrs Kollmar)
7. Vacuum – continue checking and draining of valve air lines.

RHIC ACCESS JOBS(cont'd)

8. Vacuum – leak check sector 5 Blue(inner)
9. Re-install Vacuum RGA's in following areas:
   Sector 5 – y05-ppa-pi8, y05-ppa-pi6, g5-ppa-pi2(Gate 5GE1)
   Sector 6 – g6-ppa-pi6(Gate 6Ge3 in 1007W)
   Sector 10 – yi10-ppa-pi21, bo10-ppa-pi14(Gates 10GE1,10GI1)
   Sector 11 – bo11-ppa-pi6(Gates 12GE1, 11GI1)
10 Network communications – replace network switch in 7C(Popken)
11 Vacuum – check turbo power outlets at 7 o'clk.
12 All B Alcoves – cross connect PS1, PS2, and QD1 together(Ctrls. Grp.)
13 Check IPM's at warm sectors in sect. 1 & 2.(Cameron)
14 Change one Injection Kicker in Ylw.(Bm. Comp.)
15 Cryo, snakes and spin rotators – adjust zero ref. for lead flows. Sectors 3, 4, 5, 6, 8, and 9.(1/2 hr per sect., Kollmar)
16 BPM's – change three IFE Modules in 1C and check the XBV13 Module in 1005E(Sikora)
17 Hodoscopes in sect. 12 – continue testing and set-up(Bm. Inst.)
18 Pin Diodes testing in sect. 12(Bm. Inst.)
19 Roman Pots in sects. 1 & 2 – repairs and modifications(Bm. Inst.)
20 Electron Detectors in sects. 1, 2, & 12 – testing and ampl. work(Bm. Inst.)
21 Luminosity Monitor in sect. 12 – start set-up for upcoming work(Bm. Inst.)
22 Network communications – move network equip. over to UPS power at 1004B. Locations affected: 1004B, 1004A, alcoves 3C, 5A, and 5B
23 Injection Kickers – swap out Blue #1 Kicker(Bm Comp)

RHIC EXTERNAL

1. Power supplies. See P.S. List
2. Vacuum – replace the ion pump controller in 1002B for yi2-ip-pw3.2/bo2-ip-pw3.2
3. TRW6(1000P) PSI test(MS/Phillips)

RHIC POWER SUPPLIES(Bruno)

IR Power Supplies

1. If 6b yellow trips return then we may want to remove the permit module interface chassis again and replace it with one that has all LEMO connectors in it. NO ONE
2. Ice Ball Checking and PK will replace 2 thermostats that are bypassed now. Ron & Tom. Jeff helping PK with repairs.
3. Possible work on y2-dh0-ps and yo9-dh0-ps fiber optic interface cards. Check y2-dh0 in STBY with zero setpoint. Before f.o. card was modified analog out=0.6mV and Dac out =0.5mV. After cycling from OFF to STBY with umodified f.o. card analog out=0mV and Dac out =0.6mV. After card was modified and re-installed analog out=0mV and Dac out =0.4mV. yo9-dh0-ps looks better after work on 2/6/03. See waveforms. NO ONE
4. In 1006B keep an eye out for any trips of y6-dh0. We had one on Thurs 12/19 at around 11:56 pm due to voltage spike and we want to see if it comes back. Gregg reseated some hkps connectors and it has not come back since. NO ONE.
5. Go into all blue dhx and dh0 qpa's and tag controller cards. Tag should say that this controller card must be replaced only with a controller card that is labeled for a blue dhx or dh0 qpa. The outside of the qpa should also be labeled with this. The label on the outside of the qpa can be done before the next maintenance day. Rich Kurz can start labeling just the outsides of blue dhx and dh0 qpa's starting at 8AM and he can also make up one spare controller card with correct EEPROM. I will make labels.
6. In the tunnel take a sample of green stuff from Power leads on magnets. NO ONE.
7. In 1010A, if there is time we may want to check more tq power supplies for shorted IGBT's by looking at the AC current during a turn ON. NO ONE.
8. More Q6 time constant testing and finally installing final improvement of q6 time constant. Don
9. If time allows go around and start screwing in all cards in 3u chassis. Rich Kurz, when he is done labeling qpa's and others when they are done with ice ball checks.
10. Remove Logic Analyzer from 6b if no more unexplained yellow 6b trips between now and then. Wing &
11. Possibly replace current regulator card for bi5-qd1-ps. Keep an eye on ramps. See ramp on 2/1/03 at 21:12:11 for glitch. NO ONE.
12. Replace current regulator card for y8-dh0-ps? See glitch during that caused QLI of 22:39:30 on 1/31/03. We may want to swap out hkps too because the Vripple looks different than the other p.s.'s. We will swap out **just hkps** for now. Joe and Rich C. Stay away from isoamp board – ask Don why.
13. Check why b2-dh0-ps tripped to the OFF state, on 2/8/03. Don and Gregg

Corrector Power Supplies

1. yi7-th3-ps still shows "no ps illegal state" alarm every once in a while. We swapped out the p.s. already. Now we should swap out the node card cable. We should also check all of the chips on the node card that were replaced and if some problem is found with them and fix it. Let's leave node card in for now because it has not happened that much more. Yo1-qs-ps tripped to the OFF state on 2/3/03 and 2/4/03, replace it. Bi5-sx3-ps push buttons did not work well in local, this is a low priority. Yo8-th2-ps has a broken local/remote switch but it works fine in Remote, this has a low priority. Check MADC readbacks of bo10-tv3-ps, bo3-qs3-ps, bo3-th2-ps, bo3-th8-ps, bo3-tv9-ps, bo3-th4-ps, this means check LEMOS. Yo5-octd-ps tripped OFF, replace. Yo8-th2-ps tripped to ERROR fault 3 times on 2/9/03, check connections at the magnet and at p.s., this p.s. was swapped out alreadyGene & Brian
2. Controls needs to look at yo8-qs3-ps because there is a 2A offset between the iref and current MADC's. The input to the patch panel matches. Controls

Gamma-T Power Supplies:

1. bo10-qgt-ps tripped to the OFF state on 1/31/03, 2/1/03, 2/3/03, 2/4/03. We already replaced the slugs with fuses in this p.s., next we will solder wires in place of the fuses and check for other reasons the p.s. may be tripping off. Could be looses connections on hkps or backplane. Same goes for bi1-qgt-ps, it tripped to the OFF state on 2/4/03 and yo12-qgt-ps which tripped OFF on 2/9/03 three times. Don & Gregg
2. In alcove 1C one of the Gamma-T's needs its MADC connector repaired properly. Gregg knows which Gamma-T this is. Gregg & Don
3. Gamma-T Circuit breaker that did not get labeled should get labeled. Ask Gregg which ones did not get labeled. Don & Gregg

Main Power Supplies: CARL & FRED

1. Work on PFN relay still.
2. Adjustments to DC voltmeters.
3. Measure base crystal frequency of phase locked loops.
4. Test new Procedure for restoring Mains. No RESET from pet page required.

Snake & Spin Rotator Power Supply Work:

1. Label all snake and spin rotator circuit breakers properly-make up labels now.
2. Testing spin rotator p.s.'s Wing &

ATR Power Supplies

1. Swap Circuit Breakers 42 and 44 in 1000P substation. Not definite yet.
2. Run X-ARC90 in voltage mode. Don
3. Remove Dranetz and hook up to Y-ARC p.s. Don & Costas & Line crew & Gregg
4. Test SWM p.s setpoint buffer if ready.

Valve Box Work

1. Replace warning lights with LED's on top of valve box and possibly modify light control chassis.

Timing Resolver

1. Swap out Timing Resolver A1 in 1010A. Wing-Done?????

Stand Alone QPA's

1. Examine D Connectors on stand alone QPA's. Done

Dynapower Broken Fans on stand alone p.s.'s

1. Fix them, all in service buildings. B12-q7, y12-q7, b4-dhx, b-qtrim, yo9-dh0, p.s. across from yo9-dh0 (one of them, check both) Joe D and Rich C, Mitch, Tom, Jeff can help after ice ball checks are done. If you are working in the DC compartment of any of the quad p.s.'s then you must lock out the main quads as well. If you are working in the DC compartment of any of the dipole p.s.'s then you must lock out the main dipoles as well. Check with Don if you are not sure.

Intermittent Ground Fault

1. Find intermittent ground fault in yellow Ring.

6000A Quench Switch y9-d-qpsw in 1010A

1. Check out why signal y9-d-qpsw.im6, it looks low. Wing & Mitch

Timing of Activities

1. These can all go on at once: Ice Ball checks, Correctors work, y8-dh0-ps hkps replacement, QPA labeling, screwing in 3u chassis cards, Gamma-T work.
Ice Ball Checks: 2 guys do whole ring Ron & Tom, report problems to PK, Jeff will be doing repairs with PK.
Replace 2 thermostats with PK: Jeff
Corrector Work: Gene & Brian
Y8-dh0-ps: Joe and Rich C
QPA Labeling: Rich K – start at 8AM
3u chassis card screwing in: Rich K-start when QPA labeling and spare card is done.
Gamma-T work and moving Dranetz and b2-dh0-ps: Don & Gregg
Testing how TAPE handles p.s. OFF state: George & Don

2. The **dynapower fan replacement** shall be coordinated with George's ground fault

search if you are going into DC compartments. Joe and Rich C can start this after y8-dh0-ps hkps work is done and 2 thermostats are replaced. As others get freed up they can help. Others being Tom, Jeff, Mitch, Gregg, Don

3. **6000A quench switch** shall be coordinated with George's ground fault search. Wing & Mitch

Corrector P.S. (Prioritized)	Action (2/12/03)	Comments – What was really done-What was found	Serial Number
Yi7-th3-ps	Replace Node card Cable and check chips on node card that were replaced, observe rest of node card, leave node card in.		
Yo1-qs-ps	Replace because it tripped to OFF state		
Yo5-octd-ps	Replace because it tripped to OFF state		
Yo8-th2-ps	Check connections at p.s. and magnet, swap out p.s. if all tight.		
Bo3-qs3-ps	Measure MADC signals into patch panels and compare with front of p.s. measurements		
Bo3-th2-ps	Measure MADC signals into patch panels and compare with front of p.s. measurement		
Bo3-th8-ps	Measure MADC signals into patch panels and compare with front of p.s. measurement		
Bo3-tv9-ps	Measure MADC signals into patch panels and compare with front of p.s. measurement		
Bo3-th4-ps	Measure MADC signals into patch panels and compare with front of p.s. measurement		
Bo3-tv10-ps	Measure MADC signals into patch panels and compare with front of p.s. measurement		
Yo8-th2-ps	Has broken L/R switch, swap out if there is enough time and spares LOW PRIORITY		
Bi5-sx3-ps	Complaints of all Local pushbuttons not working, check out, if ok leave, if it is a problem swap it out if there is enough time and enough spares-LOW PRIORITY		

Please give a copy to both Gregg and Don when this is completed

Dynapower P.S. With Bad Fan	Problem	Comments	P.S. Serial Number
B12-q7-ps	Center Fan not working-If you need to get into back you must lock out this p.s. and blue main quads, I am not sure if this center fan is in the front or the back.		
Y12-q7-ps	Rear Fan not working-If you need to get into back you must lock out this p.s. and yellow main quads		
B4-dhx-ps	Front right fan not working – this is ac compartment, just need to lock out this p.s. – even if fan is spinning replace it.		
b-qtrim-ps	Large rear fan closest to the back not working- If you need to get into back you must lock out this p.s. and blue main quads		
Y8-q7-ps	Small, top front left fan not working - this is ac compartment, just need to lock out this p.s. – even if fan is spinning replace it.		
Yo9-dh0-ps	Small fan front not working – this is in ac compartment, just lock out this p.s., don't go into rear at all – George is hipotting yellow dipoles!!		
Check p.s's across from yo9-dh0-ps	Front fan was not spinning – in ac compartment, lock out just this p.s.		

Give a copy of this to Gregg and Don when complete. George should only be hi-potting yellow main dipole string but if you need to get into any other DC compartments of p.s.'s you should probably check with me and George anyway to make sure no unexpected hi-potting takes place.